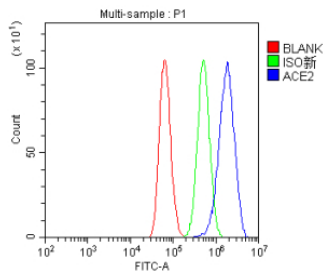
ACE2 Antibody for FACS / Angiotensin-Converting Enzyme 2 Antibody for Flow Cytometry (FY12414)

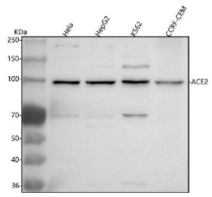
Catalog No.	Formulation	Size
FY12414	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9BYF1
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This ACE2 antibody is available for research use only.



ACE2 Antibody for FACS in human HepG2 cells. Flow cytometry analysis using a rabbit polyclonal ACE2 antibody demonstrates a rightward fluorescence shift in HepG2 cells compared with isotype control and unstained samples, indicating ACE2-positive cells. Cells were fixed with 4% paraformaldehyde and permeabilized prior to staining. Blue line: ACE2-stained cells; green line: rabbit IgG isotype control; red line: unstained control. Detection was performed using DyLight 488-conjugated goat anti-rabbit IgG secondary antibody.



Western blot analysis of ACE2 using anti-ACE2 antibody. Lane 1: human Hela whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human CCRF-CEM whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ACE2 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. The expected molecular weight of ACE2 is 90-100 kDa.

Description

Angiotensin-converting enzyme 2 (ACE2) is a membrane-associated metalloprotease encoded by the ACE2 gene and expressed on the surface of many epithelial and endothelial cell types. ACE2 Antibody for FACS enables detection of Angiotensin-converting enzyme 2 at the cell surface using flow cytometry, allowing researchers to identify ACE2-positive cell populations and analyze expression levels at the single-cell level. ACE2, also referred to as ACE2 receptor or Angiotensin-converting enzyme homolog, functions within the renin-angiotensin signaling pathway by converting angiotensin II into angiotensin-(1-7), a peptide associated with vasodilatory and anti-inflammatory signaling pathways.

Because ACE2 is a type I transmembrane protein with an extracellular catalytic domain, it is well suited for detection by flow cytometry when antibodies recognize surface-accessible regions of the protein. Flow cytometry analysis using ACE2 Antibody for FACS allows rapid quantification of ACE2 expression across heterogeneous cell populations, making it possible to identify subsets of epithelial cells, endothelial cells, and other ACE2-expressing populations within mixed samples. This single-cell analysis capability provides advantages over bulk biochemical methods by enabling measurement of expression variability between individual cells.

ACE2 surface expression is of particular interest in studies of respiratory biology, epithelial barrier tissues, cardiovascular research, and viral host entry mechanisms. Flow cytometry is frequently used to evaluate ACE2 expression in cultured epithelial cell lines, primary airway epithelial cells, kidney epithelial cells, and intestinal epithelial cells. In these settings, ACE2 Antibody for FACS enables researchers to determine the proportion of ACE2-positive cells within a population and to measure relative expression intensity across different experimental conditions or treatment groups.

Flow cytometry analysis can also be combined with multi-parameter antibody panels to evaluate ACE2 expression alongside markers of epithelial identity, immune cell populations, or differentiation status. Such approaches allow researchers to define ACE2-positive subpopulations within complex samples including organoid cultures, dissociated tissue preparations, or co-culture systems. By integrating ACE2 detection with additional cell surface markers, investigators can examine how ACE2 expression correlates with cellular phenotype, activation state, or disease-associated changes.

A rabbit polyclonal antibody recognizing ACE2 is suitable for flow cytometry-based detection of ACE2-positive cells in research applications. When used in flow cytometry workflows, ACE2 Antibody for FACS allows sensitive identification of ACE2-expressing cells and supports studies examining ACE2 biology, receptor regulation, and cellular susceptibility in systems where ACE2 surface expression plays an important biological role.

Application Notes

Optimal dilution of the ACE2 Antibody for FACS should be determined by the researcher.

Immunogen

E.coli-derived human ACE2 recombinant protein (Position: Q18-F805) was used as the immunogen for the ACE2 antibody.

Storage

After reconstitution, the ACE2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

ACE2 receptor antibody, Angiotensin-converting enzyme homolog antibody, ACEH antibody, ACE2 protein antibody